PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Docket No: Q79062
Shinichi ISHIZUKA	
Appln. No.: 10/759,279	
Confirmation No.: 6849	Group Art Unit: 2629
Filed: January 20, 2004	Examiner: Jeffrey J. PIZIALI

For: LIGHT-EMITTING DISPLAY DEVICE DRIVING METHOD THEREFOR

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

MAIL STOP RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Advisory Action dated July 21, 2006, please amend the above-identified application as follows on the accompanying pages.

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A driving method of a light-emitting display in which light-emitting elements are connected to intersections of positive electrode lines and negative electrode lines arranged in a matrix, either one of said positive electrode lines or said negative electrode lines are employed as scan lines with the other employed as drive lines, said driving method comprising;

while scanning the scan lines, connecting drive sources to desired drive lines in synchronization with the scanning, whereby allowing the light-emitting elements connected to the intersections of the scan lines and drive lines to emit light; [[and]]

during a reset period after a scan period for scanning an arbitrary scan line is complete and before scanning the following scan line is started, applying a first reset voltage to all of said scan lines and applying a second reset voltage that is greater than said first reset voltage to all of said drive lines; and

scanning the following scan line immediately after the reset period in which the first reset voltage is applied to all of said scan lines and the second reset voltage is applied to all of said drive lines.

2. (previously presented): The driving method of a light-emitting display according to Claim 1, wherein the difference between said second reset voltage and said first reset voltage is set to be lower than the light emission threshold voltage of said light-emitting element.

3. (original): The driving method of a light-emitting display according to Claim 1, wherein said drive lines are connectable to either said drive source or a second reset voltage source for providing said second reset voltage, said scan lines are connectable to either a first reset voltage source for providing said first reset voltage or a reverse bias voltage source for providing a predetermined reverse bias potential.

4. (original): The driving method of a light-emitting display according to Claim 2, wherein said drive lines are connectable to either said drive source or a second reset voltage source for providing said second reset voltage, said scan lines are connectable to either a first reset voltage source for providing said first reset voltage or a reverse bias voltage source for providing a predetermined reverse bias potential.

5. (original): The driving method of a light-emitting display according to Claim 3, wherein said first reset voltage source provides a ground potential.

6. (original): The driving method of a light-emitting display according to Claim 4, wherein said first reset voltage source provides a ground potential.

7. (previously presented): The driving method of a light-emitting display according to Claim 3, wherein said reverse bias voltage sources are to have a same voltage as the voltage value determined by subtracting said second reset voltage from light emission specifying voltages of light-emitting elements.

8. (previously presented): The driving method of a light-emitting display according to Claim 4, wherein said reverse bias voltage sources are to have a same voltage as the voltage value determined by subtracting said second reset voltage from light emission specifying voltages of light-emitting elements.

9. (previously presented): The driving method of a light-emitting display according to Claim 5, wherein said reverse bias voltage sources are to have a same voltage as the voltage value determined by subtracting said second reset voltage from light emission specifying voltages of light-emitting elements.

10. (previously presented): The driving method of a light-emitting display according to Claim 6, wherein said reverse bias voltage sources are to have a same voltage as the voltage value determined by subtracting said second reset voltage from light emission specifying voltages of light-emitting elements.

11. (original): The driving method of a light-emitting display according to Claim 1, wherein said drive lines are connectable to either one of said drive sources, the second reset voltage source for providing said second reset voltage, or a grounding means for providing a ground potential, said scan lines are connectable to either the first reset voltage source for providing said first reset potential or the reverse bias voltage source for providing a predetermined reverse bias potential.

12. (original): The driving method of a light-emitting display according to Claim 2, wherein said drive lines are connectable to either one of said drive sources, the second reset voltage source for providing said second reset voltage, or a grounding means for providing a ground potential, said scan lines are connectable to either the first reset voltage source for providing said first reset potential or the reverse bias voltage source for providing a predetermined reverse bias potential.

13. (original): The driving method of a light-emitting display according to Claim 11, wherein said first reset voltage source provides the ground potential.

14. (original): The driving method of a light-emitting display according to Claim 12, wherein said first reset voltage source provides the ground potential.

15. (previously presented): The driving method of a light-emitting display according to Claim 11, wherein said reverse bias voltage source has a same voltage as the light emission specifying voltage of light-emitting elements.

16. (previously presented): The driving method of a light-emitting display according to Claim 12, wherein said reverse bias voltage source has a same voltage as the light emission specifying voltage of light-emitting elements.

17. (previously presented): The driving method of a light-emitting display according to Claim 13, wherein said reverse bias voltage source has a same voltage as the light emission specifying voltage of light-emitting elements.

18. (previously presented): The driving method of a light-emitting display according to Claim 14, wherein said reverse bias voltage source has a same voltage as the light emission specifying voltage of light-emitting elements.

19-38 (canceled).

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-18 are pending in the application. The rejections are respectfully submitted to be obviated in view of the remarks presented herein.

Rejection Under 35 U.S.C. § 102(a) and §102(e) - Norman et al.

Claims 1-18 stand rejected under 35 U.S.C. §102(a) and §102(e) as allegedly being anticipated by Norman et al. (U.S. Patent No. 5,719,589) (hereinafter "Norman").

Regarding claim 1, the claimed invention relates to a driving method of a light-emitting display. In the driving method, "during a reset period after a scan period for scanning an arbitrary scan line is complete and before scanning the following scan line is started, applying a first reset voltage to all of said scan lines and applying a second reset voltage that is greater than said first reset voltage to all of said drive lines." Furthermore, the claimed driving method comprises "scanning the following scan line immediately after the reset period in which the first reset voltage is applied to all of said scan lines and the second reset voltage is applied to all of said drive lines."

The Examiner has alleged that, in a hypothetical case of a disconnection of the input signal in Norman, a reset state would be achieved. Such a situation would amount to a "hard reset," in which Norman's apparatus may be necessitated to restart processing anew. However, although the Examiner describes a case in which processing may be interrupted, such an interruption fails to teach or suggest "a reset period after a scan period for scanning an arbitrary scan line is complete and before scanning the following scan line is started, applying a first reset

voltage to all of said scan lines and applying a second reset voltage that is greater than said first reset voltage to all of said drive lines; and scanning the following scan line immediately after the reset period in which the first reset voltage is applied to all of said scan lines and the second reset voltage is applied to all of said drive lines," as recited by claim 1.

If in fact Norman's processing is somehow interrupted after completion of scanning Row #1 of FIG. 3 and an interruption occurs while scanning Row #2 and before scanning Row #3, this scenario would still fail to teach or suggest the claimed invention because in the case of an interruption after completion of scanning Row #1, the following scan line (Row #2 in Norman) would never occur because after such an interruption (a hard reset), Norman's system would ultimately restart processing from the beginning, and thus Row #1 would be scanned. Therefore, no reset period as claimed would ever occur in Norman, because the reset period is recited to occur "after a scan period for scanning an arbitrary scan line is complete and before scanning the following scan line is started," as recited by claim 1. The hard reset as described by the Examiner would require that *a previous scan line* be scanned again after the disconnection, and not the following scan line, as claimed.

At least by virtue of the aforementioned differences, Applicant's claim 1 distinguishes over Norman. Applicant's claims 2-18 are dependent claims including all of the elements of independent claim 1, which as established above, distinguish over Norman. Therefore, claims 2-18 are patentable over Norman for at least the aforementioned reasons as well as for their additionally recited features. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(a) and § 102(e) are respectfully requested.

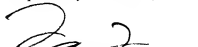
With further regards to claim 2, the claim states that "the difference between said second reset voltage and said first reset voltage is set to be lower than the light emission threshold voltage of said light-emitting element." The Examiner has relied on column 7, lines 3-18 of Norman for this teaching. However, Norman discloses only that the column rest potential combined with a row rest potential can be any potential below a level where individual LEDs of an array will turn ON. On the contrary, Applicant's claim 2 recites that ***a difference between*** the second reset voltage and the first reset voltage is set to be lower than the light emission threshold voltage of the light-emitting element. Therefore, Norman's column rest potential ***combined*** with row rest potential being below a level does not teach or suggest the ***difference*** between the second reset voltage and the first reset voltage being lower than a light emission threshold voltage, as claimed. At least by virtue of these additional differences as well as the aforementioned differences, Applicant's claimed invention distinguishes over Norman.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Lenny R. Jiang
Registration No. 52,432

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860
WASHINGTON OFFICE
23373
CUSTOMER NUMBER

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